Module 4

Emergency Services

Emergency Services

User Needs

- Response Information
- En-Route Services Information
- Emergency Assistance
- System Operational Effectiveness

Source: Rural ITS User Needs, 1999

Stakeholder Partners

Who are they?

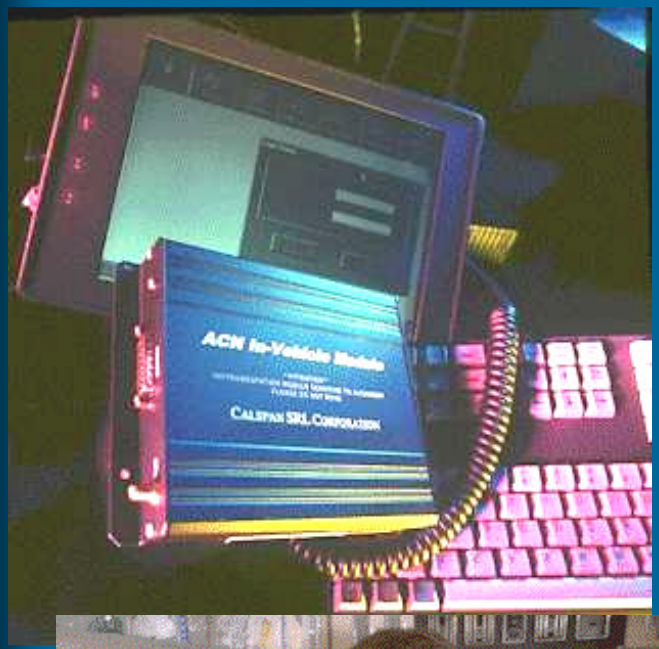
Applicable Technologies

- Rural Addressing
- In-Vehicle Route Guidance
- Automated Vehicle Location
- Automatic Collision Notification/Mayday
- Response Plans

Projects

- Crash Response
- Rural Addressing Scheme
- Wire 9-1-1 Phone Network
- Wireless E9-1-1
- LifeLink
- Emergency Vehicle Traffic Signal Pre-emption

Mayday Plus

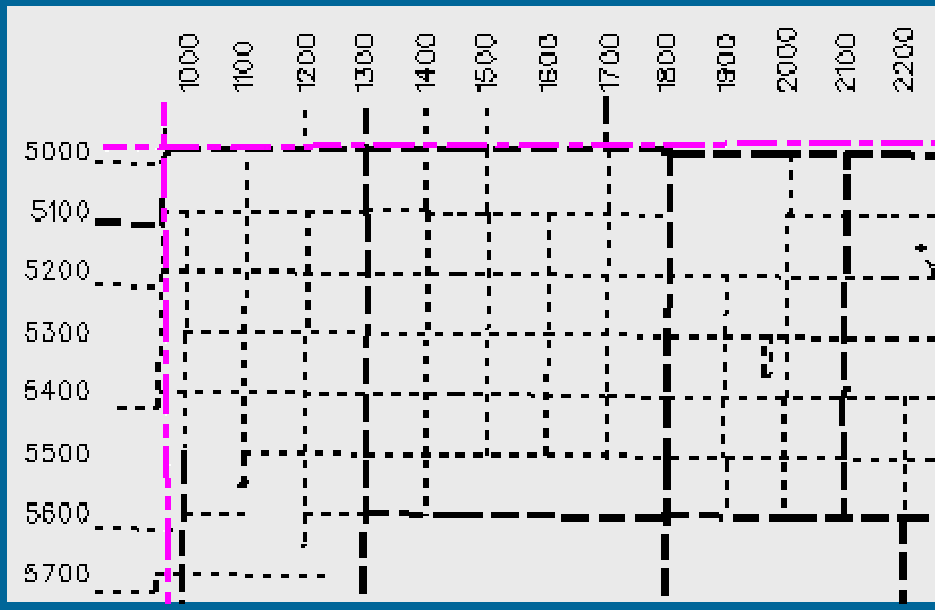


- Demonstrate public infrastructures (e.g., trauma centers) effectiveness with automated crash detection.
- Demonstrate how Automated Collision Notification system can reduce the time for personnel to reach crash victims.

Source: http://www.datumtech.com/Proj-Desc.htm

Rural Addressing Scheme

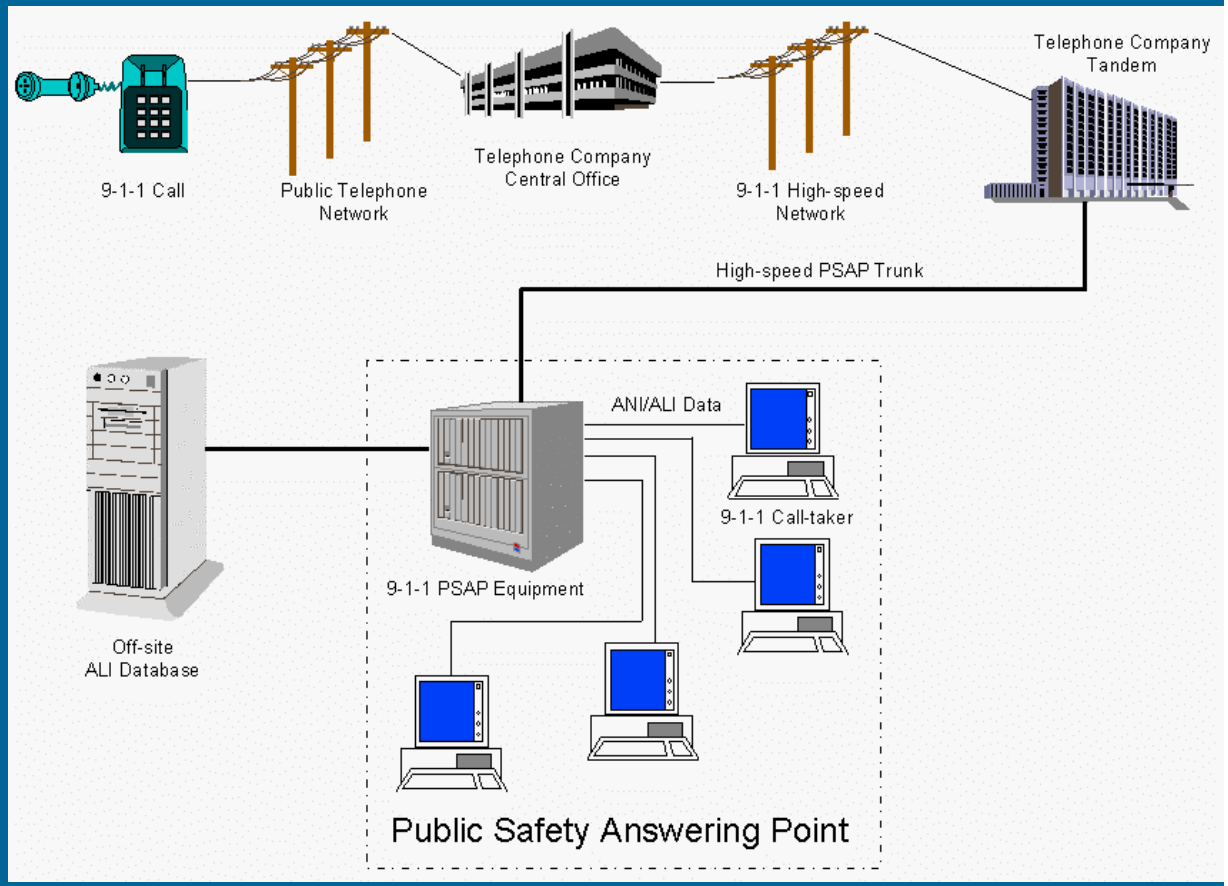
- Components of Physical Address
  - House number
  - Directional
  - Street name
- Designations for roads
  - A road at 1/8 mile = 10
  - A road at 1/4 mile = 20
  - A road at 1/2 mile = 40
  - A road at 7/8 mile = 70
- Exceptions
  - State highways
  - Farm-to-market roads



Source: http://www.911.lubbock.tx.us/address.html

Wire 9-1-1 Phone Network

- Features
  - Automatic Number Information
  - Automatic Location Information
  - Selective Routing



Source: http://www.911.lubbock.tx.us/e9-1-1.html

Wireless E9-1-1

1. RadioCamera collects the caller's signal

2. Location Fingerprint (LF) is generated

3. fingerprint is compared to a database

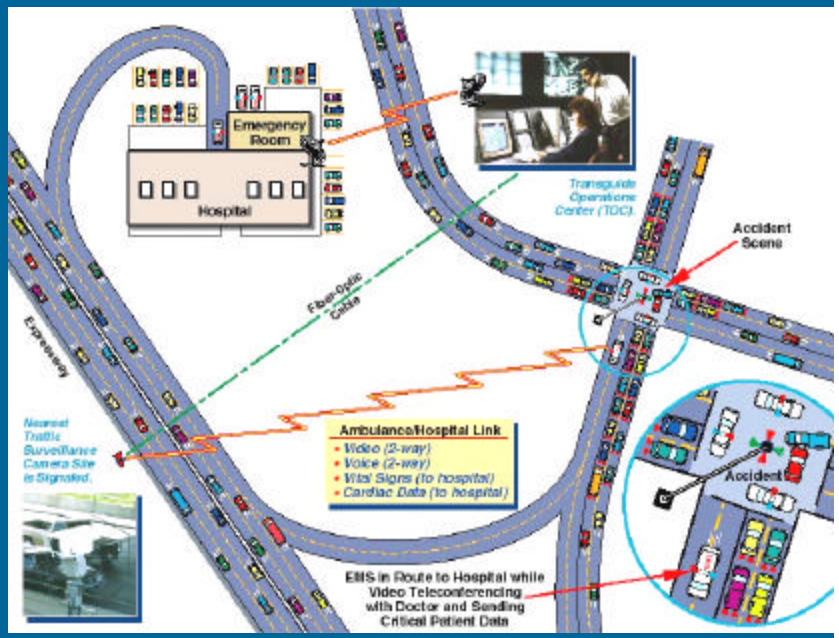
4. "tracking" refines the location estimate

5. the caller's location is established

Source: Mark Kahn, US Wireless Corporation

LifeLink

- Links ambulances with a hospital
- Each ambulance has videoconferencing hardware and software
  - 2-way video
  - 2-way voice
  - vital signs to hospital
  - cardiac data to hospital



Source: http://www.transguide.dot.state.tx.us/

Emergency Vehicle Traffic Signal Pre-emption

- Gives a green light to emergency vehicles for up to 45 seconds
- Requires minimal additional equipment

Source: Technology for Rural Transportation “Simple Solution” #11